REMARKS

Applicant respectfully requests reconsideration of this application in view of the following remarks.

The applicants thank the Examiner for the telephonic interview conducted on March 2, 2011 between the Examiner and the undersigned attorney. The rejection of claim 1 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Ollgaard (US Patent Publication No. 2003/0147753, hereinafter "Ollgaard") in view of Simmons (US Patent No. 6,802,169, hereinafter "Simmons") in further view of Maliszewski (US Patent No. 6,467,233, hereinafter "Maliszewski") was discussed. No agreement was reached between the Examiner and the undersigned attorney regarding this rejection of claim 1.

Claims 1, 9, and 13 have been currently amended. Claims 8 and 11 have been canceled. New claim 18 has been added. No new matter has been added.

Applicants reserve all rights with respect to the applicability of the Doctrine of equivalents.

Claim Rejections under 35 U.S.C. §103(a)

The Examiner rejected claims 1-4, 12 and 17 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Ollgaard (US Patent Publication No. 2003/0147753, hereinafter "Ollgaard") in view of Simmons (US Patent No. 6,802,169, hereinafter "Simmons") in further view of Maliszewski (US Patent No. 6,467,233, hereinafter "Maliszewski").

Claim 1, as amended, includes the limitation "wherein the first and second conical tower segments each have a wall thickness decreasing towards their upper ends in an

installed condition of the tower" from previous claim 8. The Office Action alleges that Farber (U.S. Patent No. 5,513,477, hereinafter "Farber") discloses this limitation.

Claim 1, as amended, recites:

> A modular kit for a tower of a wind energy turbine, comprising:
> a first conical tower segment comprising a steel tube having a predetermined length,
> a second conical tower segment comprising a steel tube having a predetermined length, wherein the first conical tower segment is to be coupled to the second conical tower segment in an assembled condition, the diameter of the first conical tower segment at a lower end being equal to the diameter of the second conical tower segment at an upper end, and
> **a first cylindrical tower segment comprising a single steel tube having a length that selected from a plurality of lengths between a predetermined minimum length and a predetermined maximum length, wherein the second conical tower segment is coupled to the first cylindrical tower segment in the assembled condition**, and
> wherein the length of the first cylindrical tower segment can be adapted to the necessary height of the tower between its minimum height and its maximum height, **wherein the first and second conical tower segments each have a wall thickness decreasing towards their upper ends in an installed condition of the tower**. (Emphasis added).

Ollgaard teaches a wind turbine having conical subsections 11-14 that are coupled together in an assembled condition.

Ollgaard fails to teach or suggest the limitations "a first cylindrical tower segment comprising a single steel tube having a length that is selected from a plurality of lengths between a predetermined minimum length and a predetermined maximum length, wherein the second conical tower segment is coupled to the first cylindrical tower segment in an assembled condition" as recited in amended claim 1 because Ollgaard only discloses conical subsection. Ollgaard fails to teach or suggest the limitation "wherein the first and second conical tower segments each have a wall thickness decreasing towards their upper ends in an installed condition of the tower" as recited in amended claim 1. (See Office Action, page 7).

Simmons discloses a building frame structure with columns have 2 lengths. A principal length is basically the height dimension of a two typical stories in a building and the other length is approximately one such story height. (Simmons, col. 2, lines 20-30).

As such, Simmons fails to teach the limitations "a first cylindrical tower segment comprising a single steel tube having a length that is selected from a plurality of lengths between a predetermined minimum length and a predetermined maximum length, wherein the second conical tower segment is coupled to the first cylindrical tower segment in an assembled condition" as recited in amended claim 1. Simmons also fails to teach or suggest the limitation "wherein the first and second conical tower segments each have a wall thickness decreasing towards their upper ends in an installed condition of the tower" as recited in amended claim 1. (See Office Action, page 7).

Maliszewski teaches that bottom section 12 and upper section 14 of wind tower 10 are preferably constructed from a plurality of rings, each ring having the same outer diameter as the other rings in a section. The segment 12 includes a plurality of steel tubes (rings 22, 24, 26, 28, 30, 32, 34, 36, and 56) rather than a single steel tube as required by amended claim 1. The length of the segment 12 is adjusted by adding or subtracting rings, not by adjusting the length of one of the rings. Additionally, the segments 12 and 14 are primarily cylindrical with one conical transition ring in each.

As such, Farber fails to teach the limitations "a first cylindrical tower segment comprising a single steel tube having a length that is selected from a plurality of lengths between a predetermined minimum length and a predetermined maximum length, wherein the second conical tower segment is coupled to the first cylindrical tower segment in an assembled condition" as recited in amended claim 1. Maliszewski fails to teach or suggest the limitation "wherein the first and second conical tower segments each

have a wall thickness decreasing towards their upper ends in an installed condition of the tower" as recited in amended claim 1. (See Office Action, page 7).

Farber discloses segmented graded structural utility poles. The pole is constructed of a fiber/resin composite or other lightweight, nonconductive material structural material (e.g., plastics). The advantages of using such materials in utility poles as noted in the background section of Farber are well known. (Simmons, col. 4, lines 25-30). An external segment 2 may have a varying thickness about their length. (Simmons, col. 5, lines 33-34).

As such, Farber fails to teach the limitations "a first cylindrical tower segment comprising a single steel tube having a length that is selected from a plurality of lengths between a predetermined minimum length and a predetermined maximum length, wherein the second conical tower segment is coupled to the first cylindrical tower segment in an assembled condition" as recited in amended claim 1. Farber fails to teach or suggest the limitations "a first conical tower segment comprising a steel tube having a predetermined length, a second conical tower segment comprising a steel tube having a predetermined length" and "wherein the first and second conical tower segments each have a wall thickness decreasing towards their upper ends in an installed condition of the tower" as recited in amended claim 1 because Farber discloses a fiber/resin composite or other lightweight, nonconductive material structural material (e.g., plastics), not a single steel tube, that has a varying thickness.

It is respectfully submitted that Maliszewski does not suggest a combination with Ollgaard, and Ollgaard does not suggest a combination with Maliszewski because Ollgaard and Maliszewski teach away from such combination. Maliszewski teaches that other towers have been created which are segments of furstro-conical sections welded

together. This welding has required a lot of talent in the field, hence making them expensive to acquire and build. (Maliszewski, background). Thus, Maliszewski teaches away from segments of conical sections being welded together as taught in Ollgaard.

Ollgaard teaches towers are typically conical in order to increase strength and save materials at the same time. (Ollgaard, paragraph [0004]). Ollgaard discloses that the complete tower is conical and each of the sections 11, 12, 13, and 14 is conical. (Ollgaard, paragraph [0084]). Thus, Ollgaard teaches away from cylindrical rings being repeatedly welded together to form cylindrical sections as taught in Maliszewski. Ollgaard is attempting to strengthen a wind turbine tower by using only 4 conical sections and also using magnetic attachment means for attaching ladders and other components inside the tower. In contrast, Maliszeski discloses a considerably weaker tower design that has many cylindrical rings welded together. The Examiner's proposed modification would frustrate the intended purpose of Ollgaard in being able to provide a strong tower. It would be impermissible hindsight to combine Ollgaard with Maliszewski based on applicants' own disclosure.

It is respectfully submitted that Farber does not suggest a combination with Ollgaard, and Ollgaard does not suggest a combination with Farber. Farber discloses segmented graded structural utility poles. The pole is constructed of a fiber/resin composite or other lightweight, nonconductive material structural material (e.g., plastics). The advantages of using such materials in utility poles as noted in the background section of Farber are well known. (Simmons, col. 4, lines 25-30). An external segment 2 may have a varying thickness about their length. (Simmons, col. 5, lines 33-34). Thus, Farber teaches away from segments of conical sections being steel or metal as taught in Ollgaard.

Ollgaard discloses determining the exact thickness for each individual plate used in the tower construction in order to achieve both minimum steel thickness (thereby reducing materials cost, the cost of transporting the tower, and the cost in man hours to cut the steel or other metal used in the tower) while maintaining structural integrity and overall strength in the tower. (Ollgaard, col. 2, 16-22). Ollgaard discloses that the rings are initially cut from a flat plate in shape. (Ollgaard, col. 4, 3-4). Thus, Ollgaard teaches away from varying the thickness within a plate because this would not achieve minimum steel thickness. The Examiner's proposed modification would frustrate the intended purpose of Ollgaard in being able to achieve a minimum steel thickness and thereby reducing materials cost, the cost of transporting the tower, and the cost in man hours to cut the steel or other metal used in the tower. It would be impermissible hindsight to combine Ollgaard with Farber based on applicants' own disclosure.

Applicants respectfully submit that the rejection is the result of impermissible hindsight reconstruction, using applicants' claims as a frame while selecting components from four references to fill the gaps of this mosaic obviousness argument. (see *Interconnect Planning Corp. v. Feil*, 774 F2d 1132, 1143 (Fed. Cir. 1985)). The motivation to combine components from these references is based upon impermissible hindsight gleaned only from applicants' disclosure and not from the references themselves.

Furthermore, even if Ollgaard, Simmons, Maliszewski, and Farber were combined, such a combination would lack the limitations "a first cylindrical tower segment comprising a single steel tube having a length that is selected from a plurality of lengths between a predetermined minimum length and a predetermined maximum length, wherein the second conical tower segment is to be coupled to the first cylindrical tower segment in an assembled condition" and "wherein the first and second conical tower segments each have a wall

thickness decreasing towards their upper ends in an installed condition of the tower" as recited in amended claim 1.

Therefore, in view of the above distinction, neither Ollgaard, nor Simmons, nor Maliszewski, nor Farber individually or in combination, disclose each and every limitation of amended claim 1. As such, amended claim 1 is not rendered obvious by Ollgaard, Simmons, Maliszewski, and Farber under 35 U.S.C. § 103(a).

It is submitted that claims 2-4, 12, and 17 are not rendered obvious by Ollgaard, Simmons, Maliszewski, and Farber under 35 U.S.C. § 103(a) given that claims 2-4, 12, and 17 depend from and include the limitations of independent claim 1.

Claims 5, 6, 7, 10 and 13-16 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Ollgaard, in view of Simmons and further in view of Maliszewski et al., (US Patent No. 6,467,233, hereinafter "Maliszewski"), and further in view of Tadros et al., (U.S. Publication No. 2003/0000165, hereinafter "Tadros").

Independent claim 13 contains similar limitations but not identical compared to independent claim 1. As discussed above, Ollgaard, Simmons, and Maliszewski fail to teach or suggest all of the features of the independent claim 1. Tadros does not cure those deficiencies.

For similar reasons, independent claim 13 is not rendered obvious by Ollgaard, Simmons, and Maliszewski in view of Tadros under 35 U.S.C. § 103(a).

Claims 5, 6, 7, 10, and 14-16 directly or indirectly depend from independent claims 1 or 13. Thus, dependent claims 5, 6, 7, 10, and 14-16 are not rendered obvious by Ollgaard, Simmons, and Maliszewski in view of Tadros under 35 U.S.C. § 103(a).

Claims 8 and 9 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Maliszewski in view of Ollgaard and further in view of Tadros and further in view of Farber (U.S. Patent No. 5,513,477, hereinafter "Farber").

Claim 8 has been canceled. Claim 9, as amended, directly depends from independent claim 1. As discussed above, Maliszewski, Ollgaard, Tadros, and Farber fail to teach or suggest all of the features of amended claim 1. Accordingly, Applicants request that the rejection of claim 9 under 35 U.S.C. §103(a) be withdrawn.

Claim 11 stands rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Ollgaard in view of Simmons in view of Maliszewski, and in further view of Farber.

Claim 11 has been canceled. Accordingly, Applicants request that the rejection of claim 11 under 35 U.S.C. §103(a) be withdrawn.

CONCLUSION

It is respectfully submitted that in view of the amendment and remarks set forth herein, the rejections have been overcome. If the Examiner believes a telephone interview would expedite the prosecution of this application, the Examiner is invited to contact Jeremy A. Schweigert at (408) 720-8300.

If there are any additional charges, please charge them to Deposit Account No. 02-2666.

Respectfully submitted,

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